

John Oberg, a Santa Fe High School Freshman, Selected as AIAA Class of 2003 Ambassador



This prestigious honor has been created in celebration of 100 years of flight. John Oberg is one of twenty students worldwide that has been selected to carry the centennial message to his classroom and community. John's Winning Essay is on page 5.

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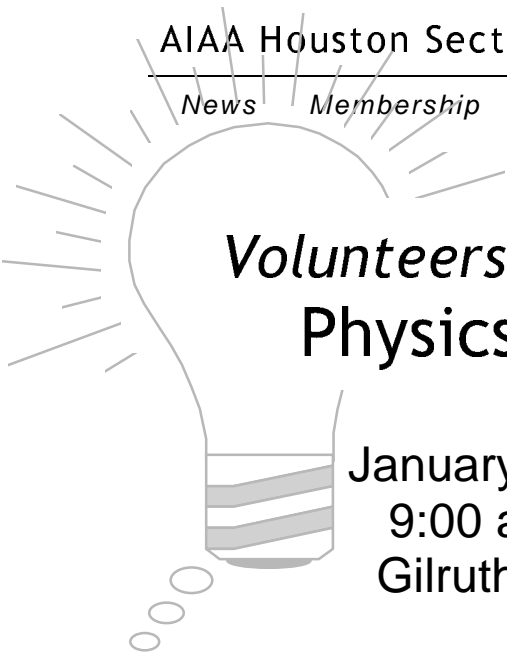
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Volunteers Needed Physics is Fun

January 22, 1999
9:00 am - Noon
Gilruth Old Gym

Volunteers are needed to demonstrate simple science to kids. You can develop your own demonstrations or use ours. It's easy and lots of fun! If you are interested in volunteering, please contact Joy Conrad at (281) 480-4101 or jconrad@averstar.com.

November 10 Deadline for Next Horizons

Thanks to everyone who contributed to this edition of Horizons! The deadline for next month's issue is just around the corner. Please submit all articles to John Keener by Thursday, November 10, 1999!

Contributions can be submitted by email to john.keener@lmco.com.

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Chairman's Corner

by Merri Sanchez, Chairman

We have had a busy AIAA month. It's my pleasure to inform the membership that the Houston Section under the leadership of Russ Filler was selected as the Outstanding Section in the large category. Congratulations to Russ and his council. I know that they worked very hard and deserve the award. We also received several other outstanding awards. But so that I don't steal Russ's pleasure and pride in his council, I'll let him tell you about them in a separate article (*see page 9*).

On September 30th, twenty of your Executive Council members attended a retreat, during which we discussed our section's goals and focus for this year. You have some very highly motivated leaders in your council! Over the next several months we will be sharing the results of the meeting with you.

We had our second AIAA Distinguished Lecturer on October 21. Dr. Scott Miller from Wichita State University gave us an excellent presentation on the "World of Secret Flight". During the program he shared his theories on the potential proof of existence of several rumored secret aircraft. The program was highly entertaining and informative. We had a record attendance at this program of 110 people. This included 13 students from our Student Branch at Texas A&M University and their faculty advisor. We were really pleased that they made the drive down for the program. In addition we had two special guests. The first was

Chester Vaughn of Boeing. Chet was the Houston Section nominee for the national award of AIAA Engineer of the Year. The Region IV Director, John Madden, has also informed me that Chet is the Region IV nominee. Each of the seven regions can nominate one engineer. John Oberg was also as a guest. John is the 14 year-old son of member Jim Oberg. John was just selected as one of 20 worldwide AIAA Ambassadors, which is a special pre-college outreach program to encourage advancement of aerospace. Past Chairman Russell Filler also had the pleasure of presenting special service citation plaques from Region IV to Mike Lisano, Neil Johnson, and Joy Conrad for their outstanding support to the section last year.

We also had a Lunch and Learn on October 8 with Dr. Bill Hunt who is the Chief of the EPA Office of Air Quality. Bill spoke on the "Impact of Kuwaiti Oil Fires as Seen from Space".

Your Public Policy Chairman John Bendle and his committee have been very active. They have drafted a position paper that we intend to present to AIAA National on the Human Exploration of Space. When they finish their work on the paper we will share it with the membership.

Your College and Co-op Chairman Nicole Smith has been doing an outstanding job working with the students from Texas A&M. We plan on going up to College Station to support one of

their meetings too. I would also like to encourage volunteers who might be interested in conducting a presentation at one of their meetings to contact Nicole at 281-222-7450. The students are looking for speakers for a variety of aerospace topics. Nicole is also hard at work trying to establish a Student Branch and University of Houston. We are only short a few students and a faculty advisor to be able to do this. The Mechanical Engineering Department at Rice University is also interested in establishing either their own student branch or perhaps a joint branch with UH. We have a faculty advisor and a couple of students already lined up there. It is great to see such high student interest in AIAA!

I'd also like to take a moment to recognize the unsung heroes of our council. These are the folks that you don't see much, but whose efforts we can't do without. First is Rajni Andrew, our Programs Chair. Rajni is inspired to arrange the best venues possible for our dinner meetings. She has done an excellent job in setting up the retreat and the past two dinner meetings. A close second is John Keener, who has taken on the job of Publications Chair, newsletter editor, and mailer. I don't think he realized the magnitude of the task when he volunteered, but we are glad to have him! And another close second is Glenn Jenkinson. Glenn is our webmaster. And boy has he had his work cut out

continued on page 10...

Chester A. Vaughan Nominated for Engineer of the Year by Houston Section *and* Region IV

by Winston Goodrich, Counselor

At the August Executive Council Meeting, the Houston Section selected Mr. Chester A. Vaughan as its nominee for the newly created National Award of AIAA Engineer of the Year. In addition, subsequent to submitting this nomination to Region IV in September, it was announced this month that Mr. Vaughan was also selected as the Region IV candidate for AIAA Engineer of the Year.

Mr. Vaughan, presently with the Boeing Space Station Division in Houston, recently retired from NASA after some four decades of exceptional engineering and management leadership dedicated to the successful development and

implementation of the US Space Program. His engineering expertise and leadership has served as a role model for two generations of NASA engineers and the aerospace community at large.

The Houston Section extends its sincerest congratulations to Mr. Vaughan on being selected as the Region IV candidate for AIAA Engineer of the Year Award. He is an outstanding candidate and is indeed most deserving of this award.



Langley and AIAA Team Up To Develop NASA Connect Series

by Merri Sanchez, Chairman

Langley Research Center and the AIAA Foundation have developed an integrated math and science series of seven instructional video programs for upper elementary and middle schools. NASA Connect supports the national math and science standards, is accompanied by a teacher's guide, includes as classroom activity or experiment, and contains a web-based technology component. It is fun, informative, educational, and free to educators. Educators do have to

register to receive the materials. If you are an educator you can register via email at connect@edu.larc.nasa.gov, at the web site <http://edu.larc.nasa.gov/connect>, or by calling (757) 864-6100. If you are interested in promoting science education, please pass on this information to any educators or schools that you know. You can also contact our Pre-College Chair Joy Conrad at (281) 480-4101 ext. 220 for more information. The schedule for the programs is below.

Program Schedule

October 21, 1999	The Measurement of All Things: Tools of the Aeronautics Trade
November 18, 1999	The Measurement of All Things: Atmospheric Detectives
December 9, 1999	Geometry of Exploration: Water Below the Surface of Mars?
January 20, 2000	Geometry of Exploration: Wings Over Mars
February 17, 2000	Proportionality: The X-Plane Generation
March 16, 2000	Proportionality: Modeling the Future
April 20, 2000	Algebra: Mirror on the Universe

Houston Section Announces Class of 2003 Winner!

by Joy Conrad, Pre-College Chair

To celebrate 100 years of flight, AIAA has created a special program for students who will graduate from high school in the year 2003. Only 20 students have been selected worldwide to serve as ambassadors to carry the centennial message to their classroom and community. Houston is fortunate to have a local winner. John Oberg was recently selected as an AIAA Class of 2003 Ambassador. He is a freshman at Santa Fe High School and will be sent on sponsored field trips over the next three years. His first trip is a tour of the Boeing plant in Seattle in December.

This is a fantastic opportunity for John and the Houston area and we look forward to supporting his endeavors. John has graciously allowed us to reprint his essay.

Congratulations John from the Houston Section of AIAA! And congratulations to John's proud parents. For more information, please see the official Evolution of Flight web site at www.flight100.org.

Flight and Human Civilization

By John Oberg

The accomplishment of flight has changed the lives of most every person on this planet. When most people look at this achievement, they're pretty much used to it. Flight through the air and space are both common in today's world, and it's hard to imagine that until 100 years ago people thought of these things as fantastic dreams. But even their wildest dreams fell far short of what has actually happened.

Flight reveals mankind's growing interest in the universe around us, and also shows what we can achieve as a civilization. There's no end to practical benefits in everyday lives. Every day, millions take a plane somewhere, aided by satellites. Millions more used space-based cell phones or watch satellite TV. But even the dreamers failed to imagine what flight would mean for what we would see, and what we would not see. From the air and from space, new geology patterns show secrets of Earth. And from the same view, things that used to seem very important (like national boundaries) are totally invisible.

What will happen in the 21st century no one knows for sure: more advances in space, biotechnology, resource use, and electronics; diseases and improvements of the body. History shows the best discoveries are always unanticipated. Years ago, people imagined flight, and it was invented and expanded beyond their wildest guesses. What we dream of now is probably likewise a dim shadow of what will occur in the future.

Future City Competition™ Mentors and Judges Needed



The time these volunteer engineers spend with the students is only one or two hours a week, yet the impact continues for a lifetime.

Future City Competition Regional Coordinator

The 8th Annual *Future City Competition™*, is a national competition for middle school students to develop their visions of the city of tomorrow. The students first design their city using the software program *SimCity 2000*, and then they build a large, three-dimensional model depicting their vision. This year, the *Future City Competition™* will team up with the Mars Millennium Project, an official White House Millennium Council Youth Initiative which challenges students across the nation to design a community that is yet to be imagined-for the planet Mars. Future City Competition students will write about designing and building a sister city on Mars in the year 2030.

Houston Regional *Future City Competition™* Committee needs mentors to help the intermediate school (7th/8th grade) teams competing in the contest. Local Greater Houston intermediate schools have formed 5-member teams (3-students, 1-teacher, and 1-mentor) and professionals are needed to support and provide guidance to the students. Future City Committee needs mentors not only in the Clear Lake, Galveston, and Pasadena areas but in other areas in Greater Houston as well.

SCHEDULE OF EVENTS

Phase I: Computer Design	October 8 – November 16, 2000
Phase II: Build Model	November 17 – January 15, 2000
Phase III: Essay	November 17 – January 15, 2000
Phase IV: Oral Presentation	November 17 – January 15, 2000
Regional Competition	January 15, 2000
National Competition	February 20-26, 2000

VOLUNTEERS

Volunteers will be accepted anytime before the Regional Competition on January 15, 2000. If you are interested in volunteering as a mentor or judge, please contact:

Bill Best	Zafar Taqvi
(281) 282-6970	(281) 244-4436
william.d.best@usahq.unitedspacealliance	Z.Taqvi@iee.org

Please indicate your school preference or contact the principal or science department of your area intermediate school directly in support of Future City Competition. Regional Competition will be held on Saturday, January 15th, 2000 at San Jacinto College Central. Please also sign up to judge the contest for that day.

For details of the National contest please check www.futurecity.org. For Houston Regional National Engineering Week Future City Competition, please go to www.ghgcorp.com/ieeegbs/futurecity-houston/.

Dinner Meeting with Dr. Kenneth Cox A 'Futurist' Perspective for Space

Discovering, Shaping, and Influencing Our Intention in Earth/Space

By Glenn Jenkinson, Website Chair

If you attended the August AIAA Houston section dinner meeting then you know first hand why Dr Kenneth J. Cox is one of AIAA's Distinguished Lecturers. What an enthusiastic and impassioned presentation he made on "A 'Futurist' Perspective for Space: Discovering, Shaping, and Influencing Our Intention in Earth/Space"!

We are living in a time of the most rapid change of events in the history of human development and evolution.

Dr. Cox opened his presentation with a personal story of how he ended up in Houston. As a young man that had already been accepted to Stanford University, he was driving through the countryside with his wife near Denver, Colorado listening to the radio. Over the radio he heard it had been decided that the nation's Human Space Exploration effort was going to be based in Houston, Texas. "It took only about 30 seconds and I turned to my wife and said, I've decided that I am going to Rice University". That story showed us clearly how Dr. Cox has had an excited passion for human space flight from a very early age. He said he felt it was his life's mission to be in the Human Space Flight endeavor. He is a fortunate man indeed to have found and lived his life's mission.

Development of Dr. Cox's presentation began years ago in

response to a request from the Deputy Director of DOD who wanted their employees to be stimulated to think in new, different, innovative ways – to think "outside of the box." So Dr. Cox prepared the original version of this presentation to really "mix things up" and bust down barriers to innovative thinking patterns. With the inputs he has received over the

years of making this presentation, he has "transformed it from a personal presentation into a collective presentation."

The presentation began with the "Dance Of Permanent White Water Management." The *fact* is we are living in a time of the most rapid change of events in the history of human development and evolution. The challenge is to provide leadership, both individually and collectively, within this turbulent environment. In these times, the feelings are similar to being on a raft in white water with only a pole: the raft is virtually unmanageable without a rudder; the pole is reactive only – must fend against the rocks; if successful, must just do the same thing tomorrow; and you do not know what will be ahead. The response to this is that organizations and institutions must adapt to increasing levels of complexity to remain viable and to properly evolve. The focus needs to: encourage discipline, integrity, teamwork,

and risk taking; align intentions, visions, and goals; develop effective leadership practices; value diversity, creativity and intuition; support individuals to create meaning in the work environment; develop creative partnering skills; utilize respectful dialogue, shared imagination, and active listening; and support an environment to encourage life-long learning.

Dr. Cox went on to address his viewpoint on space, the third millennium strategic intention, perception shift, strategic earth/space goals, outer space elements, the Apollo experience - a historical central project, post-Apollo challenges, the outer space major domains and technologies, beyond Earth to the stars, strategic Earth/space forums, the evolutionary patterns, thinking and trends, transitioning and finally his implementation roadmap for Earth/space.

This was truly an inspiring and thought provoking presentation. If you missed Dr. Cox's presentation, hopefully you will get a sense of how interesting it was from these highlights. The presentation will be available on the AIAA Houston Section web page (www.jsc.nasa.gov/aiaa) so you can review it in its entirety.

Thank you, Dr. Cox, for an outstanding topic and excellent presentation! We look forward to your speaking to us again in the future.

Status: AIAA Life Sciences, Space Processes, and Human Factors Technical Committee

By Karin Loftin, Ph.D., Life Sciences Technical Committee Chair

The AIAA Life Science, Space Processes, and Human Factors Technical Committee met during September and October to plan our activities for the coming year. We have scheduled three Lunch 'n' Learn seminars and look forward to a great attendance.

- **Tuesday, November 30, 1999**
International Space Station Food System with Charles T. Bourland. Bring your lunch and sample space food.
- **Thursday, January 13, 2000**
NASA's Life Sciences Data Archive: A Resource for Life Scientists with Jane Krauhs. This is a workshop with hands-on computer demonstrations.

- **TBD, February 2000**

Contribution of the Inner Ear to Cardiovascular Regulation with Todd Schlegel. Find out what makes you dizzy!

Our goal for this year is also to sponsor and conduct an EVA session/workshop during the AIAA Technical Symposium in May 2000. Anyone who is interested in participating in this activity is encouraged to contact me at (281) 244-1122.

Everyone, please, come to the next Life Sciences, Space Processes, and Human Factors AIAA Lunch 'n' Learn seminar on November 30. See the details below and visit our website at www.jsc.nasa.gov/aiaa.



AIAA Life Sciences, Space Processes and Human Factors Technical Committee Presents

Lunch 'n' Learn

International Space Station
Food System

Charles T. Bourland, Ph.D.

Tuesday November 30, 1999
11:30 am - 12:30 pm
Bldg. 37
Conference Room 2

Please join us, bring your lunch and a friend, and enjoy listening to Dr. Bourland discussing the focus on the current ISS food system and plans for the future. Dr. Bourland came to JSC to work on space food immediately after Apollo 11. His first assignment was the quarantine food system on the recovery ship, the USS Hornet for Apollo 12. He has been involved in the development of food systems for Apollo, Skylab, ASTP, Shuttle, Advanced Life Support, and ISS. I know you are hungry to hear all about it. Come and sample some space sustenance!

Please RSVP to Karin C. Loftin at (281) 244-1122. Hope to see you there!!

Houston Section Garners Many Awards

By Russell Filler, Past Chairman (1998-99)

I was pleased to hear from Dr John Whitesides, AIAA Vice President of Members Services that the Houston Section has been awarded **Outstanding Section for 1998-1999** in our category "Large Section." San Diego came in Second, Northern Ohio and St Louis tied for third.

The section also received first place for their efforts in:

- **Career Enhancement**
- **Communications**
- **Membership**
- **Public Policy**
- **Young Professional**

In addition, Special Service Citations have been awarded by AIAA to:

Dr. Mike Lisano: for his outstanding leadership on the ISS Service Vehicle Conference

Neil Johnson: for his outstanding leadership on the Annual Technical Symposium

Joy Conrad: for her outstanding leadership of the Pre-College activities

This confirms what I knew - we have a very dedicated and motivated team. Again, I thank all of you that contributed. The Executive Council adopted goals and objectives very early and stayed committed to achieving those goals throughout the year. Those goals translated into many achievements. The involvement, interest and

support of the membership was motivated by fine leaders that emerged to help make things happen and help the professional development of all of us.

These awards will be presented to the section at the Awards Luncheon during the 38th Aerospace Sciences Meeting and Exhibit on Tuesday January 11, 2000 in Reno, NV. Each of these awards includes a monetary award of \$400 for the section (\$2400 total). This recognition by AIAA National should help us to dedicate ourselves to continue our outstanding efforts.

I must thank the support I received from employer - United Space Alliance, my management (both with USA and NASA) and my fellow workers. The support I received from USA indicates the level of support they have to AIAA and the importance they place on continued professional development. My managers have supported my need to devote time to AIAA and they recognized my efforts benefited numerous people throughout the industry. Most importantly, I think, they all recognized the opportunities I was having in AIAA would make me a better professional in the industry. We should never reach a point in our careers where we no longer find a need to enhance our professional development. AIAA is professional development for the individual and the industry as

a whole. We should strive to constantly find ways to be more successful in our daily job responsibilities. This is more important than in the past. With Better, Faster, Cheaper we are all being asked to do more for aerospace. To achieve this we must constantly improve our own

This confirms what I knew - we have a very dedicated and motivated team. Again, I thank all of you who contributed.

skills, our way of doing business and how all of us work together to achieve what is being asked of us. We need to take advantage of the opportunities AIAA offers.

It has been a pleasure to lead the section with such fine people involved. I could not have done it alone. I look forward to helping and encouraging those that follow. I encourage the section to keep the efforts going. The section always has a need for talented people to contribute.

I will continue to support the efforts of the section and the AIAA as we all strive to achieve the purpose of AIAA: to advance the arts, sciences, and technology of aeronautics and astronautics and to nurture and promote the professionalism of those engaged in these pursuits.

Good Luck and Best Wishes,

Russell E. Filler
Associate Fellow
Past Chairman (1998-99)
AIAA Houston Section

Technical and Programmatic Papers
 Panel Discussions ♦ Breakout Discussions
 Exhibits ♦ Tour of the Johnson Space Center

Chairman's Corner

...Continued from page 3

Human Space Transportation and Exploration Workshop

28 February - 1 March 2000

Moody Gardens Hotel

Galveston, Texas

Early Registration Deadline: 14 January 2000

As we enter the new millennium, many challenges face us in our quest to explore space. Please join us for the Human Space Transportation and Exploration Workshop to discuss some of the issues involved. The workshop forum is designed to provide industry, government, and academia participants the means for interactive discussion and consensus building on the needs, requirements, and issues revolving around a variety of human-in-space topics.

Future Missions	Accommodations
Human Exploration	Outreach and Building Advocacy
Shuttle Upgrades	International Partnerships
Crew Return Vehicle	Leadership
Crew Transfer Vehicle	Lessons Learned
Heavy Lift Vehicles	New Markets
Space Tourism	ISS
Long Term Effects of Space Flight	Automation, Autonomy and Crew Involvement
Human Rating and Certification	Operations
Human Factors	Safety
Technologies	Financing
Business Cases for Human Space Transportation	Astronauts vs. Civilians in Space

for him. He has revamped the look of the website and is full of wonderful ideas on how to improve our electronic communications. He has also diligently and fruitfully been able to resolve our website host difficulties. Many of you noticed that our website was down for a couple of weeks due to technical difficulties that came about when it was rehosted to a different server. Special thanks also go to Alice Aman who works in the NASA ISD organization who was able to work the server problems and get up back on line.

We are also looking forward to an exciting couple of months this fall. On November 18, Dr. Wendell Mendell will speak at our dinner program about Lunar/Mars Exploration. On November 30 we will have a Lunch and Learn on the International Space Station Food System with Charles Bourland. On (or about) December 16 we will be bringing you a special AIAA after-work Holiday Party. I'm looking forward to seeing you at our events!

(800) 675-9524 ♦ www.jsc.nasa.gov/aiaa/hstew.html



Houston Section Announces Four New Associate Fellows

It is our pleasure to announce that four members of the Houston Section were elected to the grade of Associate Fellow for AIAA for the year 2000. AIAA Associate Fellows are individuals of distinction who have made notable and valuable contributions to the arts, sciences, or technology of aeronautics or astronautics. Our newest Associate Fellows are:

Chittur P. Balasubramanian

Lockheed Martin

Dimitris C. Lagoudas

Texas A&M University

Kenneth S. Reightler

Lockheed Martin

Merri J. Sanchez

NASA/JSC

If you know of anyone that you would like to nominate to Associate Fellow or Fellow, please notify Merri Sanchez at (281) 244-8461, or Rakesh Bhargava at (713) 977-7770, x1319. Rakesh is our new Honors and Awards Chairman. We would like to identify all potential nominees for upgrade by February 15, 2000.

Executive Council Leadership Opportunities

We still have several open leadership positions in the Executive Council, and are looking for a few good volunteers. We need your support and involvement to continue providing you with the many facets and opportunities for education and growth that AIAA has to offer.

The most critical opening is the Chair of the Student Paper Competition and Annual Technical Symposium. We already have several committee members, to help share the work. Our section is hosting the Region IV Student Paper Competition and we really need to fill the chair position. Other operational Chair openings are Professional Development, Young Professionals, and Publicity. Each of these is an important area. Technical Committee Chair openings include Astrodynamics, Space Science and Astronomy, and SR&QA. The council is considering abolishing these technical committees if we can't find chairs for them, and we really don't want to do that.

Please contact Merri Sanchez at (281) 244-8461 or merri.j.sanchez1@jsc.nasa.gov for more information. You can also go to our website for the position descriptions. A few hours a month of your time will reap vast rewards for both you and the membership!

AIAA Trial Membership Campaign

The AIAA National has initiated a pilot membership incentive program – the first ever AIAA Trial Membership Campaign. The Houston Section has 73 trial memberships that we can issue. The only requirement is that the person cannot have been an AIAA member any time previously.

Those selected will receive 9 months of AIAA membership absolutely free. That's 9 months of Aerospace America, discounts on AIAA journal

subscriptions, member costs at section events, and all the other many benefits of AIAA membership. So if you have any friends or co-workers that would be interested in trying AIAA for free, please have them contact our Membership Chair, Darby Cooper at (281) 538-6100 x20 or Merri Sanchez at (281) 244-8461. All trial membership forms must be submitted no later than December 17, 1999. Their membership will start January 2000. So start networking and helping AIAA grow!

Calendar of Events

November 1999

TBD	Telecon to Australian Section
11/1	National Technical Committee nominations due to National
11/4	Executive Council Meeting
11/9	Life Sciences TC meeting, 1130, B11 cafeteria
11/10	Newsletter inputs due
11/9	RAC Telecon, 4 pm
11/18	<i>Dinner Program</i> Dr. Wendell Mendell, speaking on Lunar/Mars Exploration
11/18	<i>NASA Connect Series</i> The Measure of All Things: Atmospheric Detectives
11/30	<i>Lunch and Learn:</i> "International Space Station Food System", with Charles Bourland, 11:30-12:30, B37 conf room 2

January 2000

TBD	<i>Lunch and Learn</i> "Using the Life Sciences Data Base" with Jane Krauhs
1/6	Executive Council Meeting
1/12	Newsletter inputs due
1/10-13	38 th AIAA Aerospace Science Meeting and Exhibits in Reno
1/20	<i>NASA Connect Series</i> Geometry of Exploration: Wings Over Mars
1/20	Dinner Program
1/22	Physics is Fun 9am – noon at the Old Gilruth Gym
TBD	Nominations due to National for following awards: Aerospace Power Systems, Energy Systems, Mechanisms & Control of Flight, DeFlores Award for Modeling and Simulation, Aerospace GNC Award, Astrodynamics, Multidisciplinary Design Optimization, Space Systems, von Braun Space Program Management; G. M. Low Space Transportation, Aerospace Maintenance, Aircraft Design, Hap Arnold Award for Excellence, Piper General Aviation, Wright Brothers Lectureship

December 1999

TBD	Lunch and Learn
12/1	Spirit of Apollo Scholarship applications available
12/2	Executive Council Meeting
12/8	Newsletter inputs due
12/9	<i>NASA Connect Series</i> Geometry of Exploration: Water Below the Surface of Mars?
12/14	Life Sciences Technical Committee Meeting, 1130, B11 Cafeteria
12/16	Dinner Program or Holiday Party

February 2000

TBD	Lunch and Learn: "Contributions of the Inner Ear to Cardiovascular Regulation" with Dr. Todd Schlegel, 11:30-12:30 B37, Conf. Room 1
TBD	Telecon to Australian Section
TBD	Congressional Visits Day
2/3	Executive Council Meeting
2/9	Newsletter inputs due
2/15	Identify Associate Fellow Nominations
2/17	<i>NASA Connect Series</i> Proportionality: The X-Plane Generation
2/17	Dinner Program
2/20-26	Engineer's Week
2/29-3/1	Human Space Transportation and Exploration Workshop at Galveston
TBD	AIAA National Elections
TBD	Spirit of Apollo Scholarship Applications due

Cranium Cruncher

By Norman Chaffee

After I submitted my column in September I received belated but correct answers to the June puzzle (about the chocolate chip cookie bakers) from four smart folks who worked their way through the logic statements and figured out the right answer. Congratulations go to Victor Treat, Monica Visinsky, Tal Williams, and Lance Mushung! You folks missed being considered for the prize, so go ahead and eat the cookies. Thanks for the input!

Last month's puzzle challenged you to figure out the number of unique configurations which could be found for nine Houston Astros ballplayers to play Hearts at three tables, while also accommodating their likes and dislikes about who they sat with. If you'll remember I told you that none of the outfielders wanted to sit at the same table; the first base, second base, and third base players wouldn't sit at the same table; and ditto for the shortstop, pitcher and catcher. The question was: how many different configurations of the nine players at three tables could they have before repeating a configuration?

This one seemed to have bamboozled some of you! If you place the three outfielders at three different tables, and then

try placing the three basemen at their tables, you will see that there are six possible combinations. Now, if you imagine adding the shortstop, pitcher and catcher to these six combinations, you will see that there are six additional combinations for each of the six we just identified - or a total of $6 \times 6 = 36$ total configurations before repeating. Note that sometimes the same three players will be at one table, but the other two tables will have different players.

I received correct answers from Joy Conrad, Anthony Spinler, and Frank Baiamonte! Congratulations to each of you! Using my random program to select a winner from the pool of correct respondents, I've come up with Anthony Spinler as the recipient of this month's prize - a free meal at any upcoming AIAA event in the next 12 months. Congratulations, Anthony! Let us keep hearing from you.

Now see what you can do with this one!

Write out the digits in a row, as I have done here:

9 8 7 6 5 4 3 2 1

Now, without changing the order of the digits, I want you to insert plus and minus signs between

digits in order to create a mathematical expression that equals 100. One example is $98 + 7 - 6 + 5 - 4 + 3 - 2 - 1 = 100$. But I want you to do it with just four plus or minus signs!

Send your answers to me at Norman.H.Chaffee1@jsc.nasa.gov or via paper mail at Norman Chaffee, Mail Code AP2, NASA-JSC, Houston, TX 77058. The winner gets a free meal at a future AIAA event during the next year.

Good luck!

Norm Chaffee

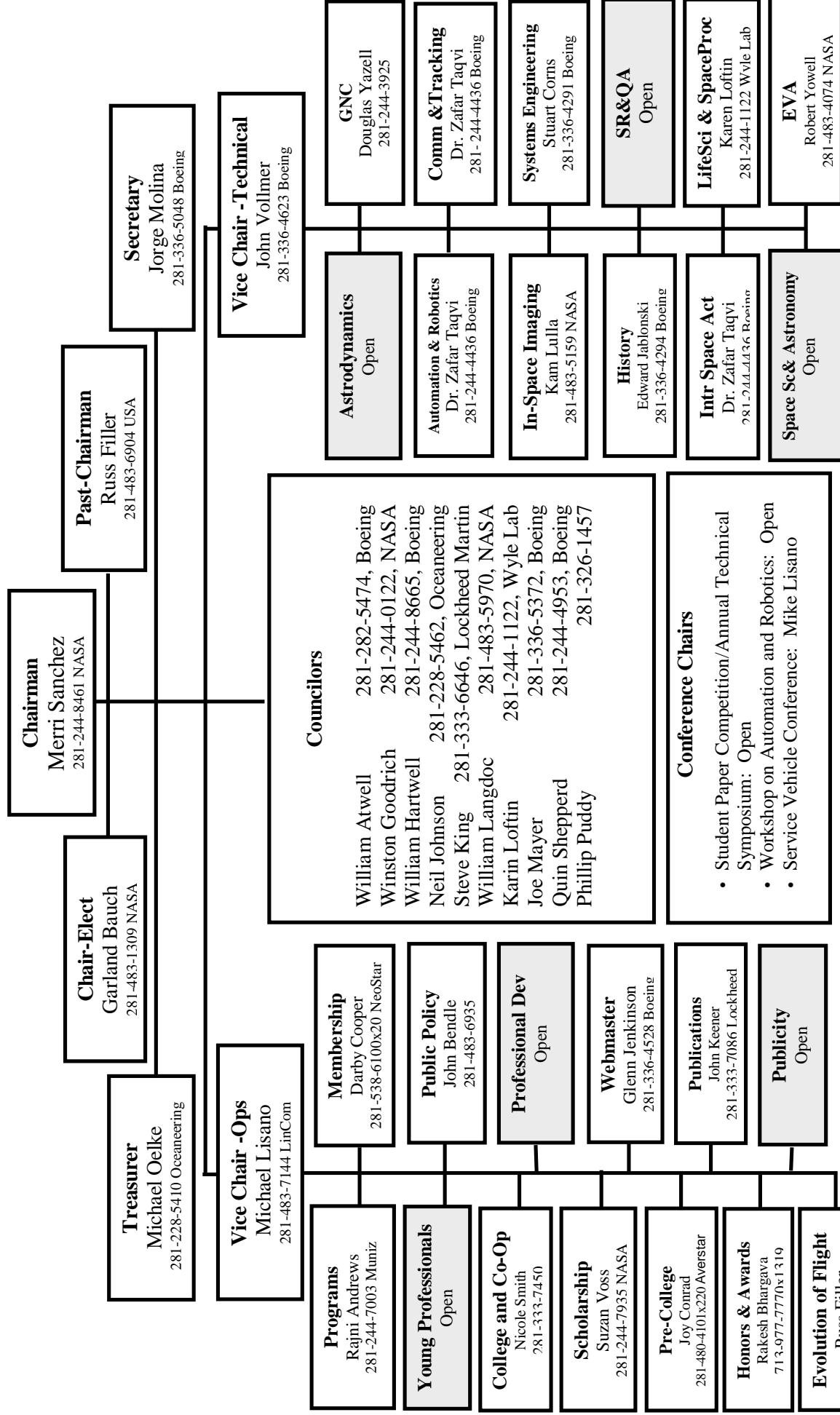
"No pessimist ever discovered the secret of the stars, or sailed to an uncharted land, or opened a new doorway for the human spirit."

-Helen Keller



**American Institute of
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1999-2000 Houston Section Executive Council



Italics implies will or has been asked, but has not accepted yet

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